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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,581	05/24/2001	David W. Beddome	90099012	2137

7590 06/14/2004

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EXAMINER

DUONG, THO V

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,581

Applicant(s)

BEDDOME ET AL.

Examiner

Tho v Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-52 is/are pending in the application.
- 4a) Of the above claim(s) 29,33,38-40 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27,28,30-32,34,41-48 and 50-52 is/are rejected.
- 7) ☒ Claim(s) 35-37 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

A receipt of applicant's amendment filed 3/12/2004 is acknowledged. Claims 27-52 are pending, claims 29,33,38-40 and 49 still remain withdrawn from further consideration.

The indicated allowability of claims 41-44,51 and 52 are withdrawn in view of the newly discovered reference(s) to Koump (US 4,360,057) and Grundy (US 5,052,475). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 27-28,30-32,34,41-48 and 50-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Koump (US 4,360,057). Koump discloses (figures 1-2) a heat exchanger comprising a core having a heat exchange portion (heat exchanger portion bellow the tube sheet (22)); the heat exchange portion comprises a layering of heat exchange members (fluid flowing in chamber (42) separating by baffles) a tube (28) including a motion limiter (30) attached thereto and extending radially therefrom to limit upward or downward axial motion of the tube, wherein at least a portion of the tube extends through the heat exchange members and an end of the tube is positioned within the core (at element 54); a load bearding member (22) positioned adjacent the core; a first adjustable mount comprising a channel (32) defined by the load bearing

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member (22), wherein the motion limiter (30) is received by the channel; a manifold (16) attached to the core; the heat exchanger further comprises a second mount at (54) positioned between the tube (28) and the core (24,26); the tube (28) defines a passage of fluid flowing within the tube, and wherein the tube is thermally permeable so that the passage of fluid is in thermal communication with the heat exchange portion of the core (the fluid). Koump further discloses (column 4, lines 20-49) that the second mount at (54) is a sliding mount since the tube is substantially free from any axial restraint of the second mount. As regarding applicant's functional languages, it has been held that the recitation that an element is "capable of" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69, USPQ 138. In this instant case, the heat exchanger of Koump is structurally the same as the heat exchanger as claimed. Therefore, the Koump's heat exchanger has the ability to perform all the function as claimed such as to provide support to the core, to increase the stiffness of the core, to transfer load from the tube to the load-bearing member.

Claims 27, 28,30,32,34,41-48 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Grundy (US 5,052,475). Grundy discloses (figures 1,2,6a and column 5, lines 2-7) a heat exchanger comprising a core having a heat exchange portion including a layering of heat exchange members (14) a tube (12) including a motion limiter (30) attached thereto and extending radially therefrom to limit upward or downward axial motion of the tube, wherein at least a portion of the tube extends through the heat exchange members; a load bearing member (16a) positioned adjacent the core; a first adjustable mount (grommet (30) is a resilient material) comprising a channel (24) defined by the load bearing member (16a), wherein the motion limiter

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(30) is received by the channel; a manifold (T) attached to the core; the heat exchanger further comprises a second mount positioned between the tube (12) and the core (14); the tube (12) defines a passage of fluid flowing within the tube, and wherein the tube is thermally permeable so that the passage of fluid is in thermal communication with the heat exchange portion of the core (14). As regarding applicant's functional languages, it has been held that the recitation that an element is "capable of" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69, USPQ 138. In this instant case, the heat exchanger of Grundy is structurally the same as the heat exchanger as claimed. Therefore, Grundy's heat exchanger has the ability to perform all the function as claimed such as to provide support to the core, to increase the stiffness of the core, to transfer load from the tube to the load-bearing member.

Allowable Subject Matter

Claims 35-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lambert et al. (US 5,894,649) discloses a heat exchanger assembly utilizing grommets and integral cast tank.

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G. D. Mantle (US 2,332,450) discloses a heat exchanger having a second mount at the tube's end.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tho Duong whose telephone number is (703) 305-0768. The examiner can normally be reached on from 9:30-6 PM.

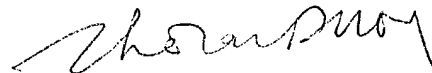
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennet, can be reached on (703) 308-0101. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.



TD

June 4, 2004



Tho Duong

Patent Examiner.